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TRANSLATION

METHOD OF CREATING p-n TRANSFERS

By

I. I. Patalakh, I. M. Kustanovich, and L. S. Polak

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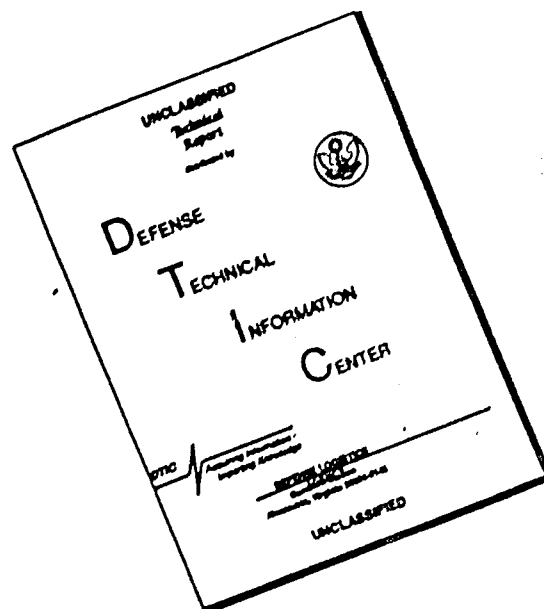
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METHOD OF CREATING p-n TRANSFERS

BY: I. I. Patalakh, I. M. Kustanovich, and L. S. Polak

English pages: 2

SOURCE: Patent No. 161074 (Appl. No. 798839/26-9,
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METHOD OF CREATING p—n TRANSFERS

by

I. I. Patalakh, I. M. Kustanovich and L. S. Polak

Methods are known for creating organic semiconductor materials with a definite type of conductivity through the introduction into them of atoms of metal as an admixture.

There is proposed a method of creating p—n transfers on organic and inorganic polymer semiconductor materials based on the use of different signs of the carrying current in the surface layer and volume of these polymers.

The method is accomplished in the following fashion.

The surface of the polymer semiconductor specimen is freed from adsorption substances (for example, by heating in vacuum). On the surface free of adsorption there is applied an electrode in such a way that the surface of the semiconductor material with the electrode be dependably protected against adsorption, after which on the unprotected areas of the specimen substance is adsorbed (for example, oxygen, iodine and bromine) which has a reverse volumetric type of conductivity, as a result of which there is formed a p—n transition of this area. On the area with the opposite type of conductivity there is created an ohmic contact.

The proposed method of obtaining a p—n transition in polymeric semiconductor materials makes it possible to use these materials as radio-technology details, the working of which is based on the properties of the p—n transition.

O b j e c t o f t h e I n v e n t i o n

Method of creating p—n transfers on organic and inorganic polymeric semiconductor materials base on the use of different signs of the carrier current in the surface layer and volume of these polymers which has the distinguishing feature

that for the purpose of using the indicated materials for preparing the semiconductor instruments, the surface of the polymeric semiconductor specimen is cleaned of the adsorbent layer of admixtures by one of known methods (for example, heating in a vacuum). On the area of the cleaned surface there is created an ohmic contact, the electrode of which protects the surface of contact from the adsorption of admixtures. On the unprotected areas of the specimen substance is adsorbed which has the opposite volumetric type of conductivity, after which on the area with the opposite type of conductivity there was created an ohmic contact.

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